**AP BIOLOGY Cell Structure and Function Outline (Ch. 4) Outline**

***AS YOU READ, RESPOND TO THE FOLLOWING:***

*Vocabulary*: **Define in your own words**

Cell-

Cell wall-

Plasma membrane-

Cyanobacteria-

Organelles-

Cytoskeleton-

Chromosomes-

Ribosomes-

Endomembrane system-

Peroxisomes-

Vacuoles-

Golgi Apparatus-

Smooth ER-

Rough ER-

Lysosomes-

Cristae-

Thykaloids-

Stroma-

Grana-

Respond to the prompts below:

What are the three parts of cell theory? Who contributed to each part of the cell theory? (4 pts)

What are a few major differences between a prokaryotic and a eukaryotic cell? Be specific and make sure to explain your reasoning. (4 pts)

Explain the endosymbiotic theory. (2 pts)

Describe the function and structure of the Nucleus. (2 pts)

Provide a quick overview of how information flows from DNA to protein. (4 pts)

Explain the function of the cytoskeleton and how actin filaments, intermediate filaments, microtubules help the cytoskeleton function. (4 pts)

What evidence exists that suggest that energy-producing organelles came from ancient bacteria through the process of enodsymbiosis? Explain. (2 pts)

Explain why increased surface is necessary for chloroplast and mitochondrial function. ( 2 pts)

***ABOUT THE READING:***

Write three things that you learned about Cell structure and function*:*

***Make sure to write a full sentence.***

*Example: I learned that cells are small in order to maximize their surface area to volume ratio; it is easier to take in nutrients and remove wastes in a small cell than a larger cell.*

*1.*

*2.*

*3.*

*\*\*SEE NEXT PAGE\*\**

**Assigned Work:***Draw a picture of either a plant or animal eukaryotic cell using the following terms:*

*ER (smooth, rough), Nucleus (nuclear envelope, chromatin, nucleolus), Mitochondrion, Golgi apparatus, Cytoplasm, Cytoskeleton (microtubules, actin filaments), Centrioles, Ribosomes, Lysosome, Vesicle, and Plasma membrane. Include organelles that are unique to a plant or animal cell depending on which cell type you draw. (16 pts total)*